

## Micah Gravitt

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**From:** Micah Gravitt  
**Sent:** Monday, November 03, 2014 2:18 PM  
**To:** Bobby Nolen  
**Cc:** Jennifer Innes  
**Subject:** RE: Tracy City NOI for Section 2  
**Attachments:** ChecklistExample.pdf; CurrentNarrativeCorrections.pdf

Mr. Nolan,

I have reviewed the SWPPP and have some revision requests. The first attachment is the TDEC checklist with an example narrative outlining the revisions. The second attachment is pages from the submitted SWPPP with corrections. Please call or email with any questions. Thanks.

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*Please note: our address is changing November 17, 2014*

*Our new address will be: 1301 Riverfront Parkway, Suite 206  
Chattanooga, TN 37402*

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Micah Gravitt  
Environmental Program Coordinator  
Chattanooga Field Office  
(423) 634-2547

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**From:** Jennifer Innes  
**Sent:** Monday, November 03, 2014 12:43 PM  
**To:** Bobby Nolen  
**Cc:** Micah Gravitt  
**Subject:** RE: Tracy City NOI for Section 2

Hi Mr. Nolen

Yes, it has been received. Micah Gravitt is reviewing the SWPPP and will notify you soon of any deficiencies or additional information that will be needed.

Thanks  
Jennifer

Jennifer H. Innes  
Environmental Program Manager  
TDEC Division of Water Resources  
Chattanooga Field Office  
(423) 634-5719





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**From:** Bobby Nolen [<mailto:reepicheep@charter.net>]

**Sent:** Monday, November 03, 2014 6:57 AM

**To:** Jennifer Innes

**Subject:** Tracy City NOI for Section 2

Good Morning, Ms. Innes:

Has TDEC received the review fee from Tracy City on this NOI? I do not want to have this hung up in the mail. Thanks.

Bobby Nolen

Nolen Engineering Group LLC

P. O. Box 382813

Birmingham, Alabama 35238

ph: 205-529-3390





TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

Division of Water Resources, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243 1-888-891-8332 (TDEC)

Notice of Intent (NOI) & Stormwater Pollution Prevention Plan (SWPPP) Checklist for the General Permit for Discharges of Stormwater Associated with Construction Activities (CGP)

Date Received: 10/21/14 Staff Review Completion Date: 10/21/14 New NPDES Tracking Number: 7106112530 MS4 Jurisdiction: N/A  
Reviewer: Michael Gravit # of Disturbed Acres: 1.25 Site/Project Name: Big Flap Gravel Water Treatment Plant Expansion  
Impaired Waters: Yes ☐ No ☒ Exceptional Waters: Yes ☒ No ☐ T & E Species: Yes ☒ No ☐ (Add comments below) Fee Collected: Yes ☒ No ☐

This NOI/SWPPP checklist pertains to the current CGP, and is used during the NOI review process to help determine whether the submittal provides enough information to grant a Notice of Coverage under the permit. This checklist does not specifically address every condition of the permit or preclude the Division from asking for additional information.

|                                     |   | NOI Requirements |  | Yes                                 | No                                  | SWPPP Requirements  |  | CGP pg # |
|-------------------------------------|---|------------------|--|-------------------------------------|-------------------------------------|---|--|----------|
| <input checked="" type="checkbox"/> | Correct site-wide permittee (Owner/Developer) entity name included                                    |                  |  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | "Common Plan of Development"/Site Concept Plan has been provided [1.2.1]  |  | 1        |
|                                     | Proper signature for the owner/developer provided   |                  |  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Plans and specs for structural control measures have been prepared and stamped by Professional Engineer or Landscape Architect [3.1.1]                |  | 13       |
|                                     | Receiving waters listed   |                  |  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Includes engineering design of sediment basin/controls for projects 10 acres or greater (5 acres if impaired/exceptional waters) [3.1.1]              |  | 13, 14   |
|                                     | ARAP Required?  |                  |  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Includes Assurance Site Assessment requirement criteria if applicable [3.1.2]   |  | 14       |
|                                     | Appropriate portion of USGS topo map provided showing the boundaries of the construction site [2.6.2] |                  |  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Signed by the operator(s) [3.3.1]   |  | 15       |
| <input checked="" type="checkbox"/> |   |                  |  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Includes multi-phase sheets: <5 ac. - 2-phase plan min.; ≥5 ac. - 3-phase plan min. [3.5.2]   |  | 18       |
|                                     |   |                  |  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Depicts disturbance limits, buffer zones, watershed drainage patterns/acreage, and proposed contours/slopes [3.5.1.d&g; 4.1.1]                        |  | 17       |
|                                     |   |                  |  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Includes a description of all construction activity (not just grading and street construction). [3.5.1.a]   |  | 17       |
|                                     |   |                  |  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Includes a description sequence of major activities (e.g., grubbing, excavation, grading, utilities, and infrastructure installation, etc.) [3.5.1.b] |  | 17       |
|                                     |   |                  |  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Includes estimates of the total site area versus the total area of the site to be disturbed [3.5.1.c]   |  | 17       |
| <input checked="" type="checkbox"/> |   |                  |  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Includes a complete inventory of aquatic resources (including any stream, sinkhole or wetland) on or adjacent to the project [3.5.1.i]                |  | 17       |
|                                     |   |                  |  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Includes a description of appropriate erosion prevention and sediment controls (EPSCs) and the general timing of implementation [3.5.2]               |  | 18       |
|                                     |   |                  |  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Specifies which permittee is responsible for implementation of which EPSC [3.5.2]   |  | 18       |
|                                     |   |                  |  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Specifies removal of trapped sediment from sediment controls at or before 50% design capacity [3.5.3.1.e]   |  | 19       |
|                                     |   |                  |  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Specifies EPSCs will be implemented before earth-moving begins [3.5.3.1.f]  |  | 20       |
| <input checked="" type="checkbox"/> |   |                  |  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Specifies stabilization within 15 days (7 days for ≥35% slopes) on site area where construction has temporarily/permanently ceased [3.5.3.2]          |  | 21       |
|                                     |   |                  |  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Specifies inspections of outfalls/EPSC measures at least twice weekly and at least 72 hours apart [3.5.8.2.a]   |  | 24       |
|                                     |   |                  |  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Specifies that vegetation, EPSCs & other protective measures are repaired, replaced, or modified within 7 days [3.5.7; 3.5.8.2.a]                     |  | 23, 24   |
|                                     |   |                  |  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Depicts the proposed location of all major structural/nonstructural controls and all proposed stabilization practices [3.5.1.g; 3.5.3.3]              |  | 18       |
|                                     |   |                  |  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Identifies all outfall locations intended for coverage under the CGP [3.5.1.g]  |  | 17       |
| <input checked="" type="checkbox"/> |   |                  |  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Includes the name of the receiving water(s), and approximate size and location of affected wetland acreage at the site [3.5.1.i]                      |  | 17       |
|                                     |   |                  |  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Identifies construction phasing for activities that will disturb >50 acres [3.5.1.m & 3.5.3.1.k]  |  | 20       |
|                                     |   |                  |  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | EPSCs have been designed to control the rainfall and runoff from a 2-year, 24-hour return interval storm [3.5.3.3] See page 2                         |  | 21       |
|                                     |   |                  |  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Specifies sediment basins for construction sites with drainage areas >10 acres [3.5.3.3] See page 2   |  | 22       |
|                                     |   |                  |  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Specifies a 30' natural riparian buffer zone adjacent to all streams, lakes, wetlands on/adjacent to the construction site [4.1.2] See page 2         |  | 26       |



Notice of Intent (NOI) & Stormwater Pollution Prevention Plan (SWPPP) Checklist for the General Permit for Discharges of Stormwater Associated with Construction Activities (CGP)

| Yes | No                                  | N/A                                 | Additional SWPPP Requirements for Discharges into Impaired or Exceptional TN Waters  | CGP pg # |
|-----|-------------------------------------|-------------------------------------|--|----------|
|     | <input checked="" type="checkbox"/> |                                     | Specifies that EPSCs proposed for the site have been designed to control storm runoff generated by a 5-year, 24-hour storm event [5.4.1.a]         | 30       |
|     |                                     | <input checked="" type="checkbox"/> | Specifies sediment basins for construction sites with drainage areas >5 acres that discharge to impaired or exceptional waters [3.5.3.3] [5.4.1.f] | 31       |
|     | <input checked="" type="checkbox"/> |                                     | Specifies a 60' natural riparian buffer zone adjacent to all impaired or exceptional waters on/adjacent to the construction site [4.1.2] [5.4.2]   | 31       |
|     |                                     |                                     | <b>SWPPP Requirements for Permanent (Post-Development) Stormwater Management</b>   | CGP pg # |
|     |                                     | <input checked="" type="checkbox"/> | Specifies velocity dissipation devices at discharge locations and along the length of any outfall channel [3.5.4]                                  | 22       |
|     |                                     | <input checked="" type="checkbox"/> | Includes technical basis used to select velocity dissipation devices where flows exceed predevelopment levels [3.5.4]                              | 23       |

Identification indicators of possible streams or wetlands utilizing site information and resources include:

1. Contour and stream indicators on USGS TOPO maps
2. Drainage area to a defined conveyance (20 acres east TN/40 middle TN/ 75 west TN),
3. Aerial photography identifying a sinuous tree line or grouping of remaining forest in an agricultural setting
4. Springhouse/box
5. Comparable nearby drainage that has previously been determined to have a stream
6. Onsite or adjacent ponds or impoundments
7. Check EFO HD GIS for previous determinations
8. NRCS soil maps or Web Soil Survey (<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>)
9. Wetlands on National Wetlands Inventory: (<http://107.20.228.18/Wetlands/WetlandsMapper.html#>)

If sufficient indicators exist, a stream determination may need to be performed. Stream determinations must be performed by a QHP.

Comments

See example narrative. Items in red will be applicable to this project & need to be included in the narrative. Items in blue will apply to drawings/plans. Also, corrections to your narrative are highlighted. Mayor Phipps needs to sign the signature page. A Refund request needs to be made by Tracy City for fee over-payment. \$1000 was paid when only ~~\$250~~ \$250 was required. If buffer can't not be implemented, then written justification is required to grant variance from 60' requirement.





## Example of Narrative

\*Items in **bold** reflect changes in the new TN Construction General Permit effective 05/24/11.

### Posting of information and SWPPP location:

- The SWPPP will be located on site for the duration of the permitted project. The SWPPP shall be posted along with the Notice of Coverage (NOC) on a job board located at or near the construction entrance. If the SWPPP is filed off site (if permit is active or inactive), then its location must be posted on said board along with the NOC. All posted information must be maintained in a legible condition.
- Other information that shall be posted must include: site contact/owner, company name, e-mail address (if available), address and telephone number of the contact/owner.

### Site Responsibilities:

- Designate who is responsible for any activities related to the construction activities for the site. The responsibilities can be assigned to one individual or can be distributed through various parties.

### Site Description:

- Include a description of existing vegetation, topography, total acreage/area, acreage to be disturbed, and soil data.

### Runoff Coefficient:

- Runoff coefficients for post-construction conditions must be included along with method used to determine these coefficients.

### Receiving Waters

- Name the first stream (if named) or unnamed tributary flowing into a blue line/named stream to which the site drains. If named or unnamed tributary is not present, then name the watershed of the first named stream to which the site drains.
- Any wetlands on site must be located on the SWPPP plans. Also, measures to protect said wetland(s) must be included in the SWPPP along with affected acreage of the wetland(s).
- **Prior to issuance of a NOC, any applicable permits i.e. Aquatic Resource Alteration Permits, septic approvals, and other wastewater permits must be obtained.**
- **Stream buffer zones of no less than 30 feet shall apply to all streams unless the stream in question is classified as impaired or high quality waters/streams. In this case a 60 buffer will be required.**

### Sequencing and Timing of Project:

- The SWPPP must include a timeline or description of sequencing of major activities involving erosion controls and earth moving activities **and shall include multiple phases of construction for all sites regardless of acreage and size of disturbance.**



Example: 1) Install construction entrance 2) Install all required silt fencing 3) Install sediment traps/ponds....etc.

- **A construction site assessment of the SWPPP shall be performed in accordance with part 3.1.2 of the Tennessee Construction General Permit within one month of construction commencement.**

#### 303d Requirements and Inspections:

- Inspections shall be conducted twice a week 72 hours apart *and before anticipated rain events*.
- Inspections must be performed by qualified inspector (**TNEPSC Level One certified, no exceptions or equivalency**).
- Inspections will include all disturbed areas, sediment control structures, outfall points and streams located on site.
- Inspections will be properly documented according to the requirements of section 3.5.8.2 of the TNCGP.
- If inspections find that maintenance (i.e. failure of control or improper installation) is required, action to correct must be taken before the next storm event but no later than 7 days after identification.
- If inspections find that controls are properly installed maintained but provide inadequate protection, the project engineer shall modify the SWPPP within 7 days of identification. These changes shall be implemented on site within 14 days.
- Inspector shall maintain a rain gauge on site.

Note: Italicized statements apply to 303d and high quality classifications.

#### Installation and Maintenance:

- **Pre-construction vegetation shall not be disturbed more than 15 days prior to any excavating activities.**
- All controls shall be installed according to manufacturer's specs and good engineering practices.
- Any off site sediment accumulations shall be removed daily. Off site accumulations deposited on private property shall be removed by methods agreed upon by the contractor and the adjacent land owner(s).
- If sediment enters waters of the State, TDEC-WPC will be notified immediately and consulted with concerning removal of said sediment if required.
- Sediment shall be removed from any sediment control device when the design capacity has been reduced by 50%.
- Exposed litter, debris, chemicals, etc., shall be properly stored or disposed of prior to anticipated storm events.
- Removal of standing muddy water from the site shall be accomplished with a pump/filter bag combination or said water will be diverted into existing sediment control devices via a pump.

#### Stabilization:

- Temporary or permanent stabilization for any area of the project must be completed no later than 15 days after the construction activity for said area has temporarily or permanently ceased.
- **Steep slopes (greater than or equal to 35%) shall be stabilized no later than 7 days after construction activity on these slopes has temporarily or permanently ceased.**

#### Material Management Practices:

- The following are the material management practices that will be used to reduce the risk of spills or other accidental exposure of materials and substance to storm water runoff.



1. Only enough product required for the job will be stored onsite.
2. All materials stored onsite will be in a neat and orderly manner in their appropriate containers, and if possible, under roof or other enclosure.
3. Products will be kept in their original containers with the original manufacture's labels.
4. Substances will not be mixed with one another unless recommended by the manufacturer.
5. All of product will be used up before disposing of container whenever possible.
6. Manufacturer's recommendations for proper use and disposal will be followed.
7. The site superintendent will inspect daily to ensure proper use and disposal practices are followed.

#### Spill Control Practices:

- Manufacturer's recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.
- Materials and equipment necessary for spill cleanup will be kept in the material storage area onsite.
- All spills will be cleaned up immediately after discovery.
- The spill area will be kept ventilated and personnel will wear appropriate protective clothing.
- The spill prevention plan will be adjusted to include measures to prevent a particular type of spill from re-occurring. A description of each spill, the cause, and cleanup measures will be included.
- The site superintendent, who is responsible for the day-to-day onsite construction operations, will be the spill prevention and cleanup coordinator and will assign other personnel, whose names will be posted in the onsite office trailer or other accessible place suitable for the purpose, to receive spill prevention and cleanup training.
- If a release containing a hazardous substance in an amount equal to or in excess of a reporting quantity established under either 40 CFR 117 or 40 CFR 302 occurs during a 24-hour period, the contractor will immediately notify the permittee who shall then do the following: notify the National Response Center (NRC) (800-424-8802) and the Tennessee Emergency Management Agency (TEMA) (emergencies: 800-262-3300; non-emergencies: 800-262-3400); as well as the local Environmental Assistance Center. Also, the SWPPP engineer will prepare a revision of this document to identify measures to prevent the reoccurrence of such releases.

#### Retention of Records:

- The following records shall be maintained on or near the site:
  1. The dates when major grading activities occur.
  2. Dates when construction activities temporarily or permanently cease on a portion of a site.
  3. Dates when stabilization measures are initiated.
  4. Inspection Reports
  5. Rainfall Records
- All required records noted in the TNCGP shall be retained by the permittee for a period of at least three (3) years from the date the Notice of Termination (NOT) is filed.



## Other Helpful Information

### Design Considerations:

- *A 60 foot undisturbed stream buffer shall be implemented on all 303d and high quality streams. The natural buffer will be measured from the top of the stream bank to the area of disturbance. The 60 requirement can be based upon average width as long as no portion of the buffer is less than 30 feet where equivalent measures will be required.*
- **Streams that are not classified as 303d or high quality will require a 30 buffer measured in the same way as in the statement above. The 30 requirement can be based upon average width as long as no portion of the buffer is less than 15 feet where equivalent measures will be required.**
- *All controls must be designed to withstand a 5 year, 24 hour storm event.*
- *Any drainage area of 5 or more acres must have a designated temporary (or permanent) sediment basin or meet what the Division considers equivalent measures.*
- All controls must be designed to accommodate a 2 year, 24 hour storm event. Also, drainage areas of 10 or more acres must have a temporary (or permanent) associated sediment basin. Sediment basins should be designed to accommodate all drainage to a specific point, not just disturbed area drainage.
- Make sure all outfalls have velocity dissipation devices.
- Use geotextile fabrics often. Especially for check dams, outlet protections, construction entrances, and diversion channels.
- **As previously mentioned all construction activities must be phased regardless of total acreage and area of disturbance. Two phases for areas less than 5 acres of disturbance and three for areas greater than 5 acres of disturbance.**
- **All measurements and specifications for each detail shall be consistent with the latest version of the Tennessee Erosion and Sediment Control Handbook (August 2012).**
- **Innovative/alternate erosion prevention and sediment controls may be used if the control has been documented to be superior or equivalent to conventional controls.**
- SWPPP narratives can be prepared by a Certified Professional in Erosion and Sediment Control (CPESC Certification) **or an individual who has completed the “Level II” design course offered by the State of Tennessee.** Plans for any structure involving structural, hydraulic, hydrologic or other engineering calculations shall be prepared by a licensed professional engineer or landscape architect certified by the State of Tennessee.
- Plans that meet the conditions listed above must also be stamped and certified in accordance with the Tennessee Code Annotated and the rules of the Tennessee Board of Architectural and Engineering Examiners.

Note: Italicized statements apply to 303d and high quality classifications.

### Site Maps:

- **An excerpt of the appropriate 7.5 minute USGS quad map with the site centered is required.** Also, when providing a general location map, use the most up to date information available. Older maps may have different names for existing roads and/or not show new roads that have been constructed. More than one type of map can be submitted, i.e. topo map and Google or MapQuest road map.
- *A map showing individual watersheds, the acreage of each drainage area, and direction of flow must be submitted. The watersheds identified need to reflect pre and post construction drainage patterns.*





- Include a map indicating the types of soils located on the site. The NRCS Web Soil Survey GIS system is what is submitted to us most often.
- Include pre-construction contours and post-construction contours on plans (grading plan). Make sure that both sets of contours are clearly marked.
- Project boundaries including areas of soil disturbance and limits of construction should be clearly marked.
- Show all erosion controls on the plans. These include but are not limited to major structural and non-structural, areas of soil stabilization practices, and outfall points. Outfall points should be identified numerically.
- On a separate sheet, show a construction detail for each erosion control device shown on the SWPPP including seeding charts for temporary and permanent stabilization.
- **Any construction/erosion/or general notes placed on the plans must accurately reflect all information provided in the SWPPP narrative and the current version of the TN Erosion Control Handbook (August 2012).**



Project: Big Fiery Gizzard WTP Expansion  
County: Grundy

Larry Phipps, Mayor X \_\_\_\_\_  
Representative of owner/developer, print or type Signature Date

| Company | Address | City | State | Zip |
|---------|---------|------|-------|-----|
|---------|---------|------|-------|-----|



## 1 BACKGROUND AND PROJECT DESCRIPTION

Having experienced a severe water shortage caused by a prolonged drought in 1987, the Town of Tracy City, Tennessee, constructed the Big Fiery Gizzard Reservoir and water treatment plant in 1995 to provide the community and surrounding region a safe, reliable water source. Funding and environmental review agencies, anticipating difficulties in gaining financial and regulatory acceptance of additional surface water sources in the future on the South Cumberland Plateau, mandated that Tracy City would have the reservoir designed with the capability of expanding its capacity in the future. The plant was also designed for the possibility of expansion.

In 2007, a drought more severe than the one in 1987 occurred. Although Tracy City's reservoir level receded to low levels, the Town still produced sufficient water to meet its citizens' needs and provided critical supplemental water to its neighbors without depleting the reservoir. However, the widespread impact of the drought severely jeopardized water supply in the region as a whole and motivated the State of Tennessee to commission a study to evaluate the long-term water resource needs of the South Cumberland Plateau. The report (South Cumberland Water Resources Regional Planning Pilot Report) resulting from a joint Tennessee/US Army Corps of Engineers study concluded that expanding Big Fiery Gizzard Reservoir was the most feasible, cost-effective alternative to providing additional source water for the region.

The Town obtained in June 2009 an Aquatic Resource Allocation Permit (ARAP – NRS 08.145) to expand its reservoir by raising the water level 7 feet. The reservoir expansion project is presently under construction and is covered by the SWPPP submitted on January 23, 2014. TDEC's Division of Water Resources approved the plant expansion project on June 30, 2014 (WS 14-0689). Project construction should commence by November 3, 2014.

*Construction can't begin until  
CGP permit coverage is issued. Plans approval by  
Nashville Central office <sup>does</sup> not cover land disturbance  
Activities*

## 2 SITE DESCRIPTION

The present water treatment plant is located south of Big Fiery Gizzard Reservoir, just north of Tennessee Highway 56 and about a mile west of downtown Tracy City, Tennessee. The plant site is approximately 2.25 acres in an area within an existing fenced compound. The project will double the plant's present capacity (1,000,000 gallons per day) to 2,000,000 gallons per day. All land disturbing activities, except for the construction of a new sludge pond, will be within the existing compound.

Elements of the project requiring land disturbance include the construction of a new concrete clear well (approximately .05 acres disturbed), a concrete oxidation tank (.025 acres disturbed), the extension of a concrete building slab (.02 acres disturbed), and a new sludge pond (1.25 acres disturbed). The attached erosion control plan accommodates each of these areas. Details for the construction of each area is as follows: *1.57 disturbed acres? NOI says 1.25*

### Clear Well

See attached Drawing No. 14-2-05 for the Plant Sedimentation and Erosion Control Plan. Generally, a thin layer of soil (less than a foot in depth) covers the various construction sites. The soil is principally Lily loam. The clear well ground slope is variable, from flat to 3%. The total area of land disturbed during the clear well construction will be approximately 0.05 acres. The clear well is located in the southwest corner of the compound.

The principal construction activities for the clear well include:

- stripping and stockpiling topsoil from the site;
- removing rock from the site to finished foundation grade;
- installing yard piping related to the clear well, and;
- forming and pouring the various concrete elements of the clear well.

The contractor will load and haul the topsoil to a stockpile location within the fenced compound. He will then remove waste rock and haul to the Owner's stockpile area about 0.25 miles west of the site and adjacent to Highway 41. He will trench and install yard piping related to the clear well. Then, he will place reinforcement, set forms, and pour the clear well foundation. Once the clear well is constructed, he will backfill the cavity around the clear well with select material, place topsoil on the graded and contoured surface of ground around the clear well, and seed and mulch the site.

*Area has to be covered by this permit or existing C&P coverage*

## Oxidation Tank

See attached Drawing No. 14-2-05 for the Plant Sedimentation and Erosion Control Plan. The concrete oxidation tank is on the eastern side of the compound adjacent to the existing access gate. Construction of the tank will cause disturbance of approximately 0.025 acres of ground. The principal oxidation tank operations will consist of:

- stripping and stockpiling topsoil from the site;
- removing rock from the site to finished foundation grade;
- installing yard piping related to the oxidation tank, and;
- forming and pouring the various concrete elements of the tank.

The contractor will load and haul the topsoil to a stockpile location within the fenced compound. He will then remove waste rock and haul to the Owner's stockpile area about 0.25 miles west of the site and adjacent to Highway 41. He will trench and install yard piping related to the tank. Then, he will place reinforcement, set forms, and pour the tank foundation. Once the tank is constructed, he will backfill the cavity around the tank foundation with select material, place topsoil on the graded and contoured surface of ground around the tank, and seed and mulch the site.

*Area has to be covered by this permit or existing CIP coverage*

## Building Slab Extension

See attached Drawing No. 14-2-05 for the Plant Sedimentation and Erosion Control Plan. The building floor slab will be extended northward 20 feet to accommodate the new treatment units. Construction of the slab extension will cause disturbance of approximately 0.02 acres of ground. The slab operations will consist of:

- stripping and stockpiling topsoil from the site;
- removing rock from the site to finished foundation grade;
- installing plant piping, electrical conduit, and other plant components required below the slab, and;
- forming and pouring the various concrete elements of the slab.

The contractor will load and haul the topsoil to a stockpile location within the fenced compound. He will then remove waste rock and haul to the Owner's stockpile area about 0.25 miles west of the site and adjacent to Highway 41. He will trench and install piping, conduit, and other underground facilities related to the slab. Then, he will place reinforcement, set forms, and pour the slab. Once the slab is constructed, he will backfill the cavity around the edge of the slab with select material, place topsoil on the graded and contoured surface of ground, and seed and mulch the site.

*Same as above*



## Sludge Holding Pond

See attached Drawing No. 14-2-05 for the Plant Sedimentation and Erosion Control Plan. The only available land of sufficient size for the sludge pond is a promontory of land west of the northwest corner of the compound and just south of the dam. Construction of the earth berms and basin will cause disturbance of approximately 1.25 acres of ground. The grading and fill operations will consist of:

- stripping and stockpiling topsoil from the site;
- hauling soil stockpiled from the Section 1 project on the west side of the Creek across the dam to the pond site;
- placing, compacting, and contouring the soil into the berm configuration of the sludge pond;
- placing rip-rap on the southern aspect of the sludge pond;
- placing top soil and seeding and mulching the exterior slopes, and;
- installing gravity and force main piping, electrical conduit, and other components required to operate the pond lift station;

The contractor will load and haul the topsoil to a stockpile location within the fenced compound. He will haul stockpiled soil from the Section 2 project from the west side of the Creek across the dam and onto the pond site. After shaping the berms, he will place topsoil, seed, and mulch the side slopes. On the southern side of the pond, he will place rip-rap. He will install gravity piping to convey sludge from the plant to the pond and force main piping from the new lift station to the existing lift station force main.



### 3 RUNOFF, EROSION PREVENTION, AND SEDIMENT CONTROLS

*Two phases required for SWAPP*

Site work on each project activity will consist of a ~~single phase~~. At the three concrete structures sites, work will move from set-up and excavating through concrete placement and finish grading in a continuous operation. ~~Therefore, only one Erosion Protection and Sedimentation Control Plan has been submitted.~~ Likewise, work on the sludge pond will consist of topsoil removal and advancing directly into soil hauling and placement in a continuous activity until work is completed. Because the project activities are within close proximity to one another, only one EPSC Plan has been provided for them all. Specific discussion for each activity follows:

#### Structure Construction (Clear Well, Oxidation Tank, and Slab Extension)

Work within areas where concrete structures will be constructed will occur on planar surfaces or near the origins of a drainage area where sheet flow predominates. Thus, there will be no concentration of stormwater runoff, so no stormwater runoff calculations or controls will be necessary. Erosion prevention and sediment control elements will include:

- placing silt fence along and just beyond the edge of the construction area of each site, and;
- placing a ~~hay bale~~ check dam across an existing small ditch near the clear well construction site;

*can't use hay bales*

*controls must come from TN EPSC Manual 2012 edition*

The contractor will strip and stockpile topsoil near the construction areas, so there will be limited hauling. The total soil volume will be less than 70 cubic yards. The stockpile will be protected by a silt fence. The contractor will deliver back hoes, dump trucks, and other heavy machinery by flatbed trailer-trucks and offload them in the treatment plant yard, which is constructed of crushed stone. Therefore, the heavy equipment will not directly access public roadways, so no construction exit to prevent soil on pavement is necessary.

#### Sludge Pond

The sludge pond site straddles an elongated promontory of land just south of the toe of the dam. Drainage progresses in largely sheet flow from the crown of the promontory. Thus, there will be no concentration of stormwater runoff, so no stormwater runoff calculations or controls will be necessary. Erosion prevention and sediment control elements will include:

- placing silt fence along and just beyond the edge of the construction area of the sludge pond;
- placing a hay bale check dams across two existing small ditches that flow just downstream of a couple of areas that will be disturbed, and
- placing rip-rap on the toe of the south slope of the pond.

The contractor will access the site from the northwest gate of the plant compound and along the crown of the promontory. He will stockpile topsoil along the toe of the dam and north of the access road. Dumps will haul soil from the Section 1 stockpile on the west end of the dam across the dam and through the plant compound. He will maintain the BMPs the Section 1 contractor had left in place around the stockpile area. He will place and shape soil to define the pond berms. He will place rip-rap along the toe of slope of the southern side. Once filling and grading are complete, he will install the gravity and force mains to serve the pond. Finally, he will seed and mulch the disturbed areas.

## 4 OTHER SWPPP COMPONENTS

### **Stormwater Management**

The project does not require installation of any measures to control pollutants in stormwater discharges that will remain in place after the construction completion.

### **Other Items Needing Control**

The contractor will park equipment within the plant compound. Fuel will be delivered from off site. Drip pans and pads will be used under vehicles. No solid waste, sanitary sewage, or building construction debris will be kept on site. Contractor's personnel will use portable toilets. The Rural Development environmental assessment concluded there are no legally protected State or Federal listed threatened or endangered aquatic fauna and/or critical habitat within the project area.

### **Local Government EPSC Requirements**

Neither Tracy City nor Grundy County requires additional erosion prevention, sediment controls, and stormwater management measures.

### **Maintenance and Inspections**

A properly certified and approved inspector will conduct inspections at the frequency and in response to conditions prescribed in TGP No. TNR100000. The contractor will respond and correct any deficiencies, no later than 7 calendar days after the deficiencies are identified, the inspector notes regarding the erosion prevention and sediment control measures implemented for this project. *need to list*

### **Non-Stormwater Discharge Measures**

No non-stormwater discharges identified in Article 1.2.3 of TGP No. TNR100000 will be encountered or released on this project.

### **TMDL Permit Eligibility**

According to the TDEC web site regarding Statewide determination of TMDLs (see <http://www.tn.gov/environment/water/watersheds/#list>), the Big Fiery Gizzard

watershed lies within the Guntersville Lake Watershed. The web site identifies a TMDL for e. coli on the Little Fiery Gizzard Creek. The Big Fiery Gizzard and Little Fiery Gizzard confluence is about 5,000 feet downstream of the project site. Construction activities within the project limits should not cause e. coli to be a pollutant of concern.



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